

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-6. (canceled)

7. (currently amended) An immunostimulatory HER-2 fusion protein comprising:

a polypeptide or protein antigen sequence component and a sequence component derived from the intracellular domain of the HER-2 protein, said fusion protein is selected from the group consisting of HER500 (SEQ ID NO: 1), HER500•hGM-CSF (SEQ ID NO: 2), HER500* (SEQ ID NO:3) and HER500*•rGM-CSF (SEQ ID NO: 4), where said fusion protein is effective to elicit a cellular immune response to the polypeptide ~~or~~for protein antigen sequence component of the fusion protein.

8. (original) The immunostimulatory HER-2 fusion protein of claim 7, where the fusion protein is HER500•hGM-CSF (SEQ ID NO: 2).

9-11. (canceled)

12. (withdrawn) A method of producing superactivated DC, by exposure to an immunostimulatory fusion protein, comprising:

exposing a dendritic cell (DC) or dendritic cell precursor (DCP) to an immunostimulatory fusion protein comprising a polypeptide or protein antigen sequence component and a sequence component derived from the intracellular domain of the HER-2 protein, in a manner effective to result in a cellular immune response to the polypeptide or protein antigen sequence component of the fusion protein.

13. (withdrawn) The method of claim 12, where said exposing takes place *in vitro*.

14. (withdrawn) The method of claim 12, where said exposing takes place *in vivo*.

15. (withdrawn) A method of treating cancer where the cancer is associated with a particular antigen, comprising:

(i) exposing an immunostimulatory fusion protein comprising a polypeptide or protein antigen sequence component and a sequence component derived from the intracellular domain of the HER-2 protein to a dendritic cell *ex vivo*; and

(ii) administering said exposed superactivated DC to a patient diagnosed with said cancer in a manner effective to result in a cellular immune response to the polypeptide or protein antigen sequence component of the fusion protein.

16. (withdrawn) The method of claim 15 where the cancer is breast carcinoma, ovarian cancer or colon cancer and the polypeptide or protein antigen sequence component of the immunostimulatory fusion protein is the mature HER-2 membrane distal extracellular domain sequence presented as SEQ. ID. NO: 23.

17. (withdrawn) The method of claim 15 or 16, further comprising:

administering said immunostimulatory fusion protein to the patient.

18. (withdrawn) A method of treating cancer where the cancer is associated with a particular antigen, comprising:

administering an immunostimulatory fusion protein having a polypeptide or protein antigen sequence component and a sequence component derived from the intracellular domain of the HER-2 protein to a patient diagnosed with said cancer in a manner effective to result in a cellular immune response to the polypeptide or protein antigen sequence component of the fusion protein.

19. (withdrawn) The method of claim 18 where the cancer is breast carcinoma, ovarian cancer or colon cancer and the polypeptide or protein antigen sequence component of the immunostimulatory fusion protein is the mature HER-2 membrane distal extracellular domain sequence presented as SEQ. ID. NO: 23.